

The Guido library

A toolbox for musical scores rendering

C. Daudin D.Fober S.Letz Y.Orlarey

Grame
Centre national de création musicale

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Existing systems

Score edition :

- Closed commercial systems : Finale, Sibelius
- LISP : Common Music Notation, Expressive Notation Package
- Compilers : MusicTex (Tex) , LilyPond

The Guido library

One of its kind : embeds musical score rendering capabilities in a stand-alone application.

- C/C++
- Multi-platforms (Windows, Mac, Linux)
- Open-source

Summary

- 1 Introduction
 - Existing systems
 - GuidoLib
- 2 Guido Music Notation
- 3 GuidoLib
 - Guido Engine
 - Mapping
 - Drawing
 - API
- 4 Conclusion
 - Future plans
 - Get the Guidolib

Guido Music Notation

The Guido Music Notation (1997 : H. Hoos, K. Hamel) : a musical score description language :

- textual
- readable

Simple musical concepts should be noted in a simple way.

The Guido Engine

2002 : Kai Renz.

- Abstract representation (AR)
- AR \rightarrow AR algorithms
- AR \rightarrow GR conversion
- GR \rightarrow GR algorithms

Mapping

Musical time ↔ Score element ↔ Graphical position

The diagram shows two staves of music in 4/4 time, with a tempo marking of ♩ = 120. The notation consists of eighth and quarter notes. The score is divided into measures by vertical red lines. Each note is enclosed in a green rectangular box, representing the 'Score element'. These boxes are further grouped by horizontal blue and red lines, representing the 'Graphical position'. The mapping illustrates how the temporal flow of the music is represented by the spatial arrangement of these graphical elements on the staff.



Multi-platform drawing

The VGSystem, a graphic device abstraction.

- GDI (Windows)
- Quartz (Mac OS X)
- GTK (GNU Linux)
- OpenGL
- Qt

API

- Documentation
- Qt code example

Future plans

- Enhance the GuidoSceneComposer's graphical possibilities
- Support more import/export formats
- Extend the score combination language

Get the Guidolib

<http://guidolib.sourceforge.net>